

AMENDED CLAIM SET

The claims have been amended as set forth in the following listing of the claims:

1. (currently amended) A gas generating composition, comprising:

0.5 to 5% by mass of phosphate glassglass powder;

1 to 15% by mass at least one selected from the group consisting of aluminum hydroxide and magnesium hydroxide; and

a binder being at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

2. (currently amended) A gas generating composition, comprising:

(a) 0.5 to 5% by mass of phosphate glassglass powder;

(b) 1 to 15% by mass at least one selected from the group consisting of aluminum hydroxide and magnesium hydroxide;

(c) an organic compound as fuel;

(d) an oxygen-containing oxidizing agent; and

(e) a binder being at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

3. (previously presented) The gas generating composition as claimed in Claim 1 or 2, further comprising:

at least one selected from the group consisting of,

(f) an additive selected from a metal oxide and a metal carbonate, and

(g) silicon dioxide having a specific surface area of 100 to 500 m²/g.

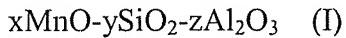
4. (currently amended) The gas generating composition as claimed in Claim 3, wherein the content of the component (a) is 0.1 to 20% by mass, the content of the component (b) is 0.1 to 20% by mass, the content of the component (c) is 30 to 60% by mass, the content of the component (d) is 60% by mass or less, the content of the component (e) is 10% by mass or less, the content of the component (f) is 10% by mass or less, and the content of the component (g) is 5% by mass or less.

5. (withdrawn) The gas generating composition as claimed in Claim 1 or 2, wherein the glass powder as component (a) is an amorphous material consisting of at least one of a mixture of metal oxides and non-metal oxides.

6. (withdrawn) The gas generating composition as claimed in Claim 5, wherein the metal oxides are selected from the group consisting of silicon dioxide, sodium oxide, potassium oxide, calcium oxide, magnesium oxide, barium oxide, lead oxide, boron oxide, and aluminum oxide.

7. (canceled)

8. (withdrawn) The gas generating composition as claimed in Claim 1 or 2, wherein the glass powder as component (a) is represented by the following formula (I):



in which x, y, and z are the mole number.

9. (withdrawn) The gas generating composition as claimed in Claim 8, wherein proportions of x, y, and z of the formula (I) are 35 to 50 mole % of x, 30 to 60 mole % of y, and 5 to 20 mole % of z.

10. (previously presented) The gas generating composition as claimed in Claim 2, wherein the fuel as component (c) is at least one selected from the group consisting of tetrazole compounds, guanidine compounds, triazine compounds, and nitroamine compounds.

11. (previously presented) The gas generating composition as claimed in Claim 2, wherein the oxygen-containing oxidizing agent as component (d) is at least one selected from the group consisting of nitrates, perchlorates, chloric acid, a basic metal nitrate, and ammonium nitrate.

12. (currently amended) A gas generating composition, comprising:

(a) 0.5 to 5% by mass of phosphate glass/glass powder;
(b) 1 to 15% by mass at least one selected from the group consisting of aluminum hydroxide and magnesium hydroxide;

(c) an organic compound as fuel;

(d) an oxygen-containing oxidizing agent; and

at least one selected from the group consisting of the following components (e), (f), and

(g) if required,

(e) a binder,

(f) an additive selected from a metal oxide and a metal carbonate, and

(g) silicon dioxide having a specific surface area of 100 to 500 m²/g,

wherein the binder as component (e) is at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal

acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

13. (previously presented) The gas generating composition as claimed in Claim 3, wherein the additive as component (f) is at least one selected from the group consisting of metal oxides including cupric oxide, iron oxide, zinc oxide, cobalt oxide, manganese oxide, molybdenum oxide, nickel oxide, bismuth oxide, gallium oxide, silica or alumina, metal hydroxides including cobalt hydroxide or iron hydroxide, metal carbonates or basic metal carbonates including cobalt carbonate, calcium carbonate, magnesium carbonate, a basic zinc carbonate or a basic copper carbonate, composite compounds of metal oxides or metal hydroxides including Japanese acid clay, kaolin, talc, bentonite, diatomaceous earth or hydrotalcite, metal acid salts including sodium silicate, mica molybdate, cobalt molybdate or ammonium molybdate, silicone, molybdenum disulfide, calcium stearate, silicon nitride, and silicon carbide.

14. (currently amended) The gas generating composition as claimed in Claim 3, wherein the component (b) is aluminum hydroxide and (e) the binder is contained in an amount of 1.0 to 5.0 mass %.

15. (currently amended) A gas generating composition, comprising:

0.5 to 1% by mass of phosphate glass powder;

1 to 15% by mass of aluminum hydroxide;

guanidine nitrate;

a basic copper nitrate; and

a binder being at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

16. (withdrawn) A gas generating composition, comprising:

glass powder;

a mixed fuel containing guanidine nitrate;

a basic copper nitrate; and

a binder being at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.

17. (withdrawn) The gas generating composition as claimed in Claim 16, wherein the mixed fuel containing guanidine nitrate is a mixed fuel of guanidine nitrate and at least one selected from the group consisting of nitroguanidine, melamine, monoaminoguanidine nitrate, diaminoguanidine nitrate, and triaminoguanidine nitrate.

18. (currently amended) The gas generating composition as claimed in Claim 16~~Claim 15 or 16~~, further comprising:

at least one selected from the group consisting of aluminum hydroxide and magnesium hydroxide.

19. (currently amended) A molded article of the gas generating composition being in the shape of a single perforated cylinder or a perforated cylinder, obtained by extrusion-molding the gas generating composition as defined in any one of Claims 1, 2, and 15~~Claims 1, 2, 15, and 16~~.

20. (currently amended) An inflator for air bag, using the gas generating composition as defined in any one of Claims 1, 2, and 15~~Claims 1, 2, 15, and 16~~.

21. (previously presented) An inflator for air bag, using the molded article of the gas generating composition as defined in Claim 19.

22. (currently amended) The gas generating composition as claimed in Claim 1 or 2, wherein a particle diameter of the phosphate glass~~glass~~-powder, in terms of 50% particle diameter, is 10 to 300 μm .

23. (currently amended) The gas generating composition as claimed in Claim 22, wherein the particle diameter of the phosphate glassglass powder is 10 to 100 μm .

24. (currently amended) The gas generating composition as claimed in Claim 23, wherein a particle diameter of the phosphate glassglass powder is 10 to 50 μm .

25. (canceled)

26. (canceled)

27. (currently amended) A gas generating composition, comprising:

0.5 to 5% by mass of phosphate glassglass powder; and

1 to 15% by mass at least one selected from the group consisting of aluminum hydroxide and magnesium hydroxide;

at least one selected from the group consisting of,

a binder,

an additive selected from a metal oxide and a metal carbonate, and

silicon dioxide having a specific surface area of 100 to 500 m^2/g ,

wherein the binder is at least one selected from the group consisting of carboxymethyl cellulose, sodium carboxymethylcellulose, potassium carboxymethylcellulose, carboxymethylcellulose ammonium, cellulose acetate, cellulose acetate butyrate, methyl cellulose, ethyl cellulose, hydroxyethyl cellulose, ethylhydroxyethyl cellulose, hydroxypropyl cellulose, carboxymethylethyl cellulose, fine crystalline cellulose, polyacrylamide, an aminated product of polyacrylamide, polyacryl hydrazide, a copolymer of an acrylamide and a metal

Application No.: 10/695,759
Reply After Final dated December 26, 2006
to Final Office Action of July 25, 2006
Page 11 of 14

Docket No.: 0425-1062P

acrylate, a copolymer of polyacrylamide and a polyacrylic ester, polyvinyl alcohol, acrylic rubber, guar gum, starch, and silicone.